STATE OF SOUTH CAROLINA)

Petition of the Office of Regulatory Staff to Establish Docket to Consider Implementing the Requirements of Section 1307 (State Consideration of Smart Grid) and Section 532 (Energy Efficiency) Programs of the Energy Independence and Security Act of 2007

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

COVER SHEET

DOCKET NUMBER: 2008 - 447 - EG

(Please type or print)

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DOCKETING INFORMATION (Check all that apply)

☐ **Emergency Relief demanded in petition** ☐ **Request for item to be placed on Commission's Agenda expeditiously**

☐ **Other:**

INDUSTRY (Check one)

- ☐ Electric
- ☒ Electric/Gas
- ☐ Electric/Telecommunications
- ☐ Electric/Water
- ☐ Electric/Water/Telecom.
- ☐ Electric/Water/Sewer
- ☐ Gas
- ☐ Railroad
- ☐ Sewer
- ☐ Telecommunications
- ☐ Transportation
- ☐ Water
- ☐ Water/Sewer
- ☐ Administrative Matter
- ☐ Other:

NATURE OF ACTION (Check all that apply)

- ☐ Affidavit
- ☐ Agreement
- ☐ Answer
- ☐ Appellate Review
- ☐ Application
- ☐ Brief
- ☐ Certificate
- ☐ Comments
- ☐ Complaint
- ☐ Consent Order
- ☐ Discovery
- ☐ Exhibit
- ☐ Expedited Consideration
- ☐ Interconnection Agreement
- ☐ Interconnection Amendment
- ☐ Late-Filed Exhibit
- ☐ Letter
- ☐ Memorandum
- ☐ Motion
- ☐ Objection
- ☐ Petition
- ☐ Petition for Reconsideration
- ☐ Petition for Rulemaking
- ☐ Petition for Rule to Show Cause
- ☐ Petition to Intervene
- ☐ Petition to Intervene Out of Time
- ☐ Prefiled Testimony
- ☐ Promotion
- ☒ Proposed Order
- ☐ Protest
- ☐ Publisher's Affidavit
- ☐ Report
- ☐ Request
- ☐ Request for Certification
- ☐ Request for Investigation
- ☐ Resale Agreement
- ☐ Resale Amendment
- ☐ Reservation Letter
- ☐ Response
- ☐ Response to Discovery
- ☐ Return to Petition
- ☐ Stipulation
- ☐ Subpoena
- ☐ Tariff
- ☐ Other:

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November 3, 2009

VIA ELECTRONIC FILING
The Honorable Charles Terreni
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive (29210)
Post Office Drawer 11649
Columbia, South Carolina 29211

RE: Petition of the Office of Regulatory Staff to Establish Docket to Consider Implementing the Requirements of Section 1307 (State Consideration of Smart Grid) and Section 532 (Energy Efficiency) Programs of the Energy Independence and Security Act of 2007
Docket No. 2008-447-EG

Dear Mr. Terreni:

Enclosed for filing in the above-referenced docket, on behalf of South Carolina Electric & Gas Company; Progress Energy Carolinas, Inc.; Duke Energy Carolinas, LLC; Piedmont Natural Gas Company, Inc.; Lockhart Power Company; and the South Carolina Office of Regulatory Staff, is the Joint Proposed Order on Consideration of Energy Standards Established Under the Energy Independence and Security Act of 2007.

If you have any questions, please advise.

Very truly yours,

K. Chad Burgess

KCB/kms
Enclosure

cc: Shannon Bowyer Hudson, Esquire
Nanette S. Edwards, Esquire
E. Wade Mullins, Esquire
Joey R. Floyd, Esquire
Damon E. Xenopoulos, Esquire
Catherine E. Heigel, Esquire

Richard D. Chamberlain, JD, CPA
M. John Bowen, Jr., Esquire
Thomas L. Moses, Esquire
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Scott M. Tyler, Esquire
Thomas S. Mullikin, Esquire
Michael K. Lavanga, Esquire
Brian L. Franklin, Esquire
Sue-Ann Gerald Shannon, Esquire
James H. Jeffries, IV, Esquire
Jane Lewis-Raymond, Esquire
Len S. Anthony, Esquire
Ken Baker
Joseph Wojcicki
(all via U.S. First Class Mail)

BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2008-447-EG - ORDER NO. 2009-___

NOVEMBER __, 2009

IN RE:	**Petition of the Office of Regulatory Staff to Establish Docket to Consider Implementing the Requirements of Section 1307 (State Consideration of Smart Grid) and Section 532 (Energy Efficiency Programs) of the Energy Independence and Security Act of 2007**	))))))))	**Joint Proposed Order on Consideration of Energy Standards Established Under the Energy Independence and Security Act of 2007**

I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina ("Commission") based on the Petition, as amended, of the South Carolina Office of Regulatory Staff ("ORS") requesting that the Commission consider certain matters set forth in Sections 532 and 1307 of the Energy Independence & Security Act of 2007, Pub. L. No. 110-140 ("EISA").

A Notice of Filing was prepared and published in newspapers of general circulation in South Carolina. The Notice of Filing established February 27, 2009 as the date by which interested parties or entities could timely file petitions to intervene or present their views in writing to the Commission.

CMC Steel South Carolina ("CMC Steel"), Duke Energy Carolinas, LLC ("Duke"), Progress Energy Carolinas, Inc. ("Progress"), South Carolina Electric & Gas Company ("SCE&G"), Wal-Mart Stores East, LP ("Wal-Mart"), Sam's East, Inc., ("Sam's"), and Mr. Joseph Wojcicki each filed a Petition to Intervene, which the Commission granted.

On February 20, 2009, ORS filed with the Commission an Amended Petition to include for consideration in the above-referenced docket matters set forth in Section 532 of EISA. In response to the Amended Petition, the Commission, on March 4, 2009, issued another Notice of Filing which was published in newspapers of general circulation in South Carolina. The Notice of Filing established May 1, 2009 as the date by which interested parties or entities could timely file petitions to intervene or present their views in writing to the Commission. Piedmont Natural Gas Company, Inc. ("PNG"), Lockhart Power Company ("Lockhart"), and Nucor Steel-South Carolina ("Nucor") each filed a Petition to Intervene, which the Commission granted.

By notices issued May 12, 2009, the Commission established testimony filing dates for all parties and scheduled a hearing on this matter for August 17, 2009. By notices issued June 15, 2009, the Commission revised the testimony filing dates for all parties and rescheduled the hearing on this matter for September 22, 2009.

On August 4, 2009, pre-filed direct testimony was submitted on behalf of the following parties: ORS by Carey M. Flynt and M. Anthony James; Duke by Jeffrey R. Bailey, Donald H. Denton, III, Jane L. McManeus, Robert A. McMurry, and Richard G. Stevie, Ph.D; Lockhart by Bryan D. Stone; PNG by Pia K. Powers; Progress by Laura A. Bateman, Rebecca S. Harrison, and B. Mitchell Williams; and SCE&G by Randal M. Senn and Julius A. Wright, Ph.D. No other party pre-filed any testimony.

On September 10, 2009, ORS, Duke, Lockhart, PNG, Progress, and SCE&G ("Stipulating Parties") filed with the Commission a Stipulation, which, among other things, set forth that the Stipulating Parties agree that:

1. The standards set forth in EISA and the subject of this docket should not be adopted as such standards have already been adopted and encouraged by the Commission and therefore no action by the Commission is required at this time.

2. It would not be in the best interest of the Stipulating Parties or customers for a specific standard, particularly a rate design standard, to be adopted and uniformly applied to all South Carolina investor-owned utilities.

3. If the Commission finds its current processes, which comport with EISA standards, should be amended or that the standards should receive further consideration, such standards should be addressed on a company-by-company basis to allow flexibility.

CMC Steel, Wal-Mart, Sam's, and Nucor chose not to enter into the Stipulation; however, these parties did not object to the Stipulation.

The Commission conducted a formal hearing in this matter on September 22, 2009, beginning at 10:30 a.m. in the hearing room of the Commission, with the Honorable Elizabeth B. Fleming, presiding. Shannon Bowyer Hudson, Esq. represented ORS. Catherine E. Heigel, Esq. and Brian L. Franklin, Esq. represented Duke. Sue-Ann Gerald Shannon, Esq. represented Lockhart. James H. Jeffries, IV, Esq. represented PNG. Len S. Anthony, Esq. represented Progress. K. Chad Burgess, Esq. represented SCE&G. Mr. Wojcicki appeared pro se. CMC Steel, Wal-Mart, Sam's, and Nucor did not appear at the hearing.

At the opening of the hearing, Ms. Hudson, counsel for ORS, advised the Commission of the Stipulation, and moved the Stipulation and all pre-filed direct testimony and exhibits into the Record without objection. The Commission accepted the Stipulation and all pre-filed testimony and exhibits into the Record. The Stipulation was established as Hearing Exhibit 1, and the resumé of SCE&G Witness Wright was established as Hearing Exhibit 2.

The Commission then examined four different panels of witnesses on the subjects of (i) Integrated Resource Planning, (ii) Rate Design Modifications to Promote Energy Efficiency Investments, (iii) Smart Grid Investments, and (iv) Smart Grid Information. First, a panel consisting of Duke Witness McMurry, ORS Witness James, Progress Witness Williams, and SCE&G Witness Wright discussed Integrated Resource Planning. Next, Duke Witnesses Bailey and Stevie, ORS Witnesses James and Flynt, PNG Witness Powers, Progress Witness Bateman, and SCE&G Witness Wright discussed Rate Design Modifications to Promote Energy Efficiency Investments. Then, a panel consisting of Duke Witnesses Denton and McManeus, ORS Witness James, Progress Witness Harrison, and SCE&G Witness Senn discussed Smart Grid Investments. Finally, Duke Witness Denton, ORS Witness James, Progress Witness Bateman, and SCE&G Witness Senn discussed Smart Grid Information. No other witnesses were presented at the hearing.

II. FINDINGS OF FACT AND CONCLUSION OF LAW

After carefully considering the evidence, including the testimony and exhibits, the Commission makes the following Findings of Fact and Conclusions of Law.

A. Statutory Background

Pursuant to Section 111 of the Public Utility Regulatory Policies Act of 1978 ("PURPA"), 16 U.S.C. § 2621 et seq., "[e]ach State regulatory authority (with respect to each electric utility for which it has ratemaking authority) . . . shall consider each standard established in [16 U.S.C. § 2621(d)] and make a determination concerning whether or not it is appropriate to implement such standard . . . ." 16 U.S.C. § 2621(a). Section 303 of PURPA likewise requires "each State regulatory authority (with respect to each gas utility for which it has ratemaking authority) . . . [to] provide public notice and conduct a hearing respecting the standards

established by [15 U.S.C. 3203(b)]" and to make a determination concerning whether or not it is appropriate to adopt such standards. 15 U.S.C. § 3203(a).

On December 19, 2007, President Bush signed into law EISA, which establishes, among other things, a federal policy to modernize the electric utility transmission and distribution system to maintain reliability and infrastructure protection and to develop and achieve a "Smart Grid."[1] Sections 532 and 1307 of EISA amend Sections 111 and 303 of PURPA to require each state regulatory authority, with respect to each electric utility or natural gas utility for which it has ratemaking authority, to consider six new federal standards (four for electric utilities and two for natural gas utilities) and to make a determination whether or not it is appropriate to implement such standards to carry out the purposes of PURPA—namely, to encourage (1) the conservation of energy supplied by electric and natural gas utilities; (2) the optimization of the efficiency of use of facilities and resources by electric and natural gas utilities; and (3) equitable rates to electric and natural gas consumers. See 16 U.S.C. § 2611; 15 U.S.C. § 3201.

Section 532(a)(16) of EISA added a standard to 16 U.S.C. § 2621(d) that requires each electric utility to "(A) integrate energy efficiency resources into utility, State, and regional plans;

[1] As described in Section 1301 of EISA, a "Smart Grid" is a grid that (1) increases the use of digital information and controls technology to improve reliability, security, and efficiency of the electric grid; (2) employs dynamic optimization of grid operations and resources, with full cyber-security; (3) deploys and integrates distributed resources and generation, including renewable resources; (4) develops and incorporates demand response, demand-side resources, and energy-efficiency resources; (5) deploys ''smart'' technologies (real-time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices) for metering, communications concerning grid operations and status, and distribution automation; (6) integrates ''smart'' appliances and consumer devices; (7) deploys and integrates advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air conditioning; (8) provides consumers timely information and control options; (9) develops standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid; and (10) identifies and lowers unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

and (B) adopt policies establishing cost-effective energy efficiency as a priority resource." See 16 U.S.C. § 2621(d)(16).

Likewise, Section 532(b)(5) of EISA added a standard to 15 U.S.C. § 3203(b) that requires each natural gas utility to "(A) integrate energy efficiency resources into the plans and planning processes of the natural gas utility; and (B) adopt policies that establish energy efficiency as a priority resource in the plans and planning processes of the natural gas utility." See 15 U.S.C. § 3203(b).

Section 532(a)(17) of EISA addresses rate design modifications to promote energy efficiency investments. This section requires that the rates allowed to be charged by any electric utility "(i) align utility incentives with the delivery of cost-effective energy efficiency; and (ii) promote energy efficiency investments," see 16 U.S.C. § 2621(d)(17)(A), and lists six policy options that each state regulatory authority shall consider to achieve these objectives, see 16 U.S.C. § 2621(d)(17)(B). Those policy options include (i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency; (ii) providing utility incentives for the successful management of energy efficiency programs; (iii) including the impact on adoption of energy efficiency as one of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; (iv) adopting rate designs that encourage energy efficiency for each customer class; (v) allowing timely recovery of energy efficiency-related costs; and (vi) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable. See 16 U.S.C. § 2621(d)(17)(B).

Similarly, Section 532(b)(6) of EISA provides that "[t]he rates allowed to be charged by a natural gas utility shall align utility incentives with the deployment of cost-effective energy efficiency," see 15 U.S.C. § 3203(b)(6)(A), and lists four policy options that each state regulatory authority shall consider to achieve this objective, see 15 U.S.C. § 3203(b)(6)(B). Those policy options include (i) separating fixed-cost revenue recovery from the volume of transportation or sales service provided to the customer; (ii) providing to utilities incentives for the successful management of energy efficiency programs, such as allowing utilities to retain a portion of the cost-reducing benefits accruing from the programs; (iii) promoting the impact on adoption of energy efficiency as one of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; and (iv) adopting rate designs that encourage energy efficiency for each customer class. See 15 U.S.C. § 3203(b)(6)(B).

Section 1307(a)(16) of EISA provides guidance to states regarding their considerations of Smart Grid investments. Section 1307(a)(16)(A) requires that each state "consider requiring that, prior to undertaking investments in nonadvanced grid technologies, an electric utility of the State demonstrate to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including—(i) total costs; (ii) cost-effectiveness; (iii) improved reliability; (iv) security; (v) system performance; and (vi) societal benefit." See 16 U.S.C. § 2621(d)(18)(A). Additionally, Section 1307(a)(16)(B) requires each state to consider "authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system." See 16 U.S.C. § 2621(d)(18)(B). Finally, Section 1307(a)(16)(C) requires each State to consider "authorizing

any electric utility or other party of the State to deploy a qualified smart grid system to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system, based on the remaining depreciable life of the obsolete equipment." See 16 U.S.C. § 2621(d)(18)(C).

Section 1307(a)(17) of EISA requires that each state consider requiring that all electricity purchasers be provided direct access, in written or electronic machine-readable form as appropriate, to certain information from their electricity provider. See 16 U.S.C. § 2621(d)(19)(A). To the extent practicable, that information must include the following: (i) prices—time-based electricity prices in the wholesale electricity market, and time-based electricity retail prices or rates that are available to purchasers; (ii) usage—the number of electricity units, expressed in kwh, purchased by the customer; (iii) intervals and projections—updates of information on prices and usage to be offered on not less than a daily basis, including hourly price and use information, where available, as well as a day-ahead projection of such price information to the extent available; (iv) sources—written information, provided annually, on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis. See 16 U.S.C. § 2621(d)(19)(B). Finally, Section 1307(a)(17) requires that purchasers "be able to access their own information at any time through the Internet and on other means of communication elected by the utility for Smart Grid applications" and that other interested persons "be able to access information not specific to any purchaser through the Internet." See 16 U.S.C. § 2621(d)(19)(C).

It bears noting that, although we must consider the proposed EISA standards set forth above, "[n]othing . . . prohibits . . . [us] from making any determination that it is not appropriate

to implement any such standard, pursuant to [our] authority under [South Carolina] law." See 16 U.S.C. § 2621(a); see also 15 U.S.C. § 3203(a)(2). And, even if we were to find these standards appropriate or appropriate with modifications, we may still decline to implement such standards provided that we state our reasons in writing and make our statement of reasons available to the public. See 16 U.S.C. § 2621(c); see also 15 U.S.C. § 3203(c).

With this background, we now consider each of the proposed EISA standards in turn.

B. Integrated Resource Planning

1. Electric Utilities

Section 532(a)(16) of EISA asks us to consider an integrated resource planning standard whereby electric utilities must integrate energy efficiency resources into utility, State, and regional plans and adopt policies establishing cost-effective energy efficiency as a priority resource. See 16 U.S.C. § 2621(d)(16). We need not adopt such a standard at this time because, as detailed by Duke Witness McMurry, ORS Witness James, Progress Witness Williams, and SCE&G Witness Wright, existing South Carolina law and Commission procedures already require the integration of energy efficiency resources into utility plans as envisioned by Section 532(a)(16) of EISA.

The South Carolina General Assembly has defined an integrated resource plan ("IRP") as "a plan which contains the demand and energy forecast for at least a fifteen-year period, contains the supplier's or producer's program for meeting the requirements shown in its forecast in an economic and reliable manner, including both demand-side and supply-side options, with a brief description and summary cost-benefit analysis, if available, of each option which was considered, including those not selected, sets forth the supplier's or producer's assumptions and conclusions with respect to the effect of the plan on the cost and reliability of energy service, and

describes the external environmental and economic consequences of the plan to the extent practicable." S.C. Code Ann. § 58-37-10(2) (emphasis added). A demand-side option is "a program conducted or proposed by a producer, supplier, or distributor of energy for the reduction or more efficient use of energy requirements of the producer's, supplier's, or distributor's customers, including, but not limited to, conservation and energy efficiency, load management, cogeneration, and renewable energy technologies." S.C. Code Ann. § 58-37-10(1).

Pursuant to S.C. Code Ann. § 58-37-40(A), electric utilities "must prepare integrated resource plans" in accordance with the procedures this Commission outlined in Order No. 98-502. Consistent with South Carolina law, these procedures require electric utilities to prepare an IRP which includes both demand-side and supply-side options. Additionally, public utilities must file an annual plan with a ten-year forecast of its demand and the energy resources it proposes to use to meet its forecast demand. S.C. Code Ann. § 58-33-430.

These statutes indicate that the State's policy in electric resource planning includes the development of an IRP which integrates energy efficiency resources into the mix of potential resource options—comparable to what the proposed standard set forth in Section 532(a)(16)(A) of EISA requires. And, consistent with the proposed standard set forth in Section 532(a)(16)(B) of EISA, the South Carolina resource planning statutes also require that demand-side options be considered in terms of economy and reliability.

Moreover, we "may adopt procedures that encourage electrical utilities and public utilities providing gas services subject to the jurisdiction of the commission to invest in cost-effective energy efficient technologies and energy conservation programs." S.C. Code Ann. § 58-37-20. And if adopted, the procedures must:

> provide incentives and cost recovery for energy suppliers and distributors who invest in energy supply and end-use technologies that are cost-effective, environmentally acceptable, and reduce energy consumption or demand; allow energy suppliers and distributors to recover costs and obtain a reasonable rate of return on their investment in qualified demand-side management programs sufficient to make these programs at least as financially attractive as construction of new generating facilities; require the Public Service Commission to establish rates and charges that ensure that the net income of an electrical or gas utility regulated by the commission after implementation of specific cost-effective energy conservation measures is at least as high as the net income would have been if the energy conservation measures had not been implemented.

Id.[2] Thus, consistent with the EISA standard set forth in Section 532(a)(16)(B), we have the authority to approve incentives that establish energy efficiency as a priority resource. To date, we have used this authority granted to us by the General Assembly to adopt a Demand-Side Management and Energy Efficiency ("DSM & EE") cost recovery procedure for Progress that encourages the implementation of cost-effective DSM & EE programs, see Docket No. 2008-251-E, Order No. 2009-373, and to approve Progress's initial slate of DSM & EE programs, see Docket No. 2009-190-E, Order No. 2009-374. And, currently pending before us are SCE&G's application for the establishment and approval of DSM programs and rate rider, see Docket No. 2009-261-E, and Duke's request for approval of its modified save-a-watt compensation model for the portfolio of energy efficiency and demand-side management programs approved in Docket No. 2009-166-E, Order No. 2009-336, see Docket No. 2009-226-E.

In sum, we agree with EISA that electric utilities should consider energy efficiency as part of their resource planning process; however, we see no need to adopt the proposed standard

[2] Section 58-37-20 also notes that "[f]or purposes of this section only, the term 'demand-side activity' means a program conducted by an electrical utility or public utility providing gas services for the reduction or more efficient use of energy requirements of the utility or its customers including, but not limited to, utility transmission and distribution system efficiency, customer conservation and efficiency, load management, cogeneration, and renewable energy technologies."

set forth in Section 532(a)(16) of EISA because South Carolina law already requires energy efficiency resources to be integrated into the resource planning process and provides us and the utilities with the necessary tools to ensure that cost-effective energy efficiency is an integral part of the utility's resource plan.

2. Natural Gas Utilities

As to natural gas utilities, Section 532(b)(5) of EISA requires that we consider a standard that requires natural gas utilities to integrate energy efficiency resources into its plans and planning processes and adopt policies that establish energy efficiency as a priority resource in its plans and planning processes. For the following reasons, we decline to adopt this standard.

First, as SCE&G Witness Wright noted, this standard prescribes the use of an IRP process for the gas utility resource planning process, but "it is a specific, legislative defined policy of the State not to require natural gas utilities to provide IRPs in their resource planning activities." Direct Testimony of Julius A. Wright, Ph.D., at 27-28. Pursuant to Order No. 93-145, dated February 8, 1993, this Commission previously imposed a gas IRP process on natural gas utilities. But, the General Assembly later specifically removed the requirement that utilities providing natural gas services must prepare an IRP, see S.C. Code Ann. § 58-37-40(A) (providing that "[n]othing in this subsection may be construed as requiring . . . gas utilities subject to the jurisdiction of the South Carolina Public Service Commission to prepare and submit an integrated resource plan."), and in response to this legislative enactment, we subsequently removed the IRP planning requirement for gas utilities in Docket No. 91-677-G, Order No. 97-404. Thus, we conclude that the proposed EISA standard set forth in Section 532(b)(5)(A) is inconsistent with South Carolina law and decline to adopt it here.

Second, the current Commission requirements and the existing practices of both PNG and SCE&G meet the standards set forth in EISA Section 532(b)(5)(A) and (B). According to SCE&G Witness Wright and PNG Witness Powers, energy efficiency is already considered as a priority resource in their planning processes. Dr. Wright explained:

> [SCE&G] bases its future resource needs on forecasts that use historical data. This historical data incorporates a variable that captures the impacts of historical upgrades in appliance efficiency and homebuilding code upgrades, and these impacts are reflected in a trend of declining gas usage on a per customer basis. These historical energy efficiency trends are then applied to [SCE&G]'s future demand forecast, thereby anticipating a reduction in future gas demand due to future projected increases in appliance efficiency and increasing building code standards. Consequently, [SCE&G] has effectively designated declines in future gas demand from energy efficiency resources as having an absolute, known impact on future gas demands—which said another way makes the expectation of future efficiency gains a priority resource in [SCE&G]'s future resource planning.

Direct Testimony of Julius A. Wright, Ph.D., at 28-29. Likewise, Ms. Powers stated that "the actual and potential impact of energy efficiency is expressly considered in Piedmont's long-term, annual, and seasonal supply and capacity planning as well as its demand and load growth calculations." Testimony of Pia K. Powers, at 3.

The testimony of ORS Witness Flynt confirms the testimony of Witnesses Wright and Powers. Ms. Flynt noted that ORS is tasked with reviewing each company's forecasting methods and models as part of the annual review of the purchased gas adjustment and the gas purchasing policies pursuant to Commission Order Nos. 87-898 and 88-294 and concluded, based on her review of these models and methods, that "[b]y incorporating . . . historical data into the forecasting methods, the impact of energy efficiency measures, including both energy efficiency specifications for new appliances and updated building codes is taken into consideration in developing the Company's plans." Direct Testimony of Carey M. Flynt, at 3.

In addition to including energy efficiency resources in their planning processes, PNG and SCE&G also treat energy efficiency resources as priority resources as evidenced by their direct promotion of energy efficiency. Ms. Powers stated that "Piedmont also actively promotes conservation and energy efficiency by its customers through the use of energy efficiency advertising and communications." Testimony of Pia K. Powers, at 3. And, Dr. Wright testified that SCE&G promotes energy efficiency for both its natural gas and electric customers on its company website and continues to proactively educate its customers and create awareness of issues related to energy efficiency and conservation through, among other things, bill inserts, weatherization projects for combined electric/gas customers, Energy Awareness Month (October), and public service announcements. Direct Testimony of Julius A. Wright, Ph.D., at 29-30.

Based on the foregoing, PNG and SCE&G already consider energy efficiency as a priority resource in their natural gas planning processes.[3] And we note that even were this not so, existing South Carolina law already grants us the necessary authority to "adopt procedures that encourage . . . public utilities providing gas services subject to the jurisdiction of the commission to invest in cost-effective energy efficient technologies and energy conservation programs." S.C. Code Ann. § 58-37-20; see also Testimony of Witness Pia K. Powers, at 3 (noting that "existing South Carolina law provides ample authority for the Commission to approve [energy efficiency] programs without explicit adoption of the federal standards."). As

[3] We also note that, at the hearing, Ms. Powers informed us that PNG would soon file with the Commission an application for approval of energy efficiency programs. That application has since been filed. See Docket No. 2009-411-G.

such, we see no need to adopt the proposed standards set forth in Section 532(b)(5) of EISA at this time.

C. Rate Design Modifications to Promote Energy Efficiency Investments

1. Electric Utilities

Section 532(a)(17) of EISA requires us to consider certain rate design modifications for electric utilities that align utility incentives with the delivery of cost-effective energy efficiency and promote energy efficiency investments. See 16 U.S.C. § 2621(d)(17). Specifically, EISA requires us to consider the following six policy options:

(i) removing the throughput incentive and other regulatory and management disincentives to energy efficiency;

(ii) providing utility incentives for the successful management of energy efficiency programs;

(iii) including the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives;

(iv) adopting rate designs that encourage energy efficiency for each customer class;

(v) allowing timely recovery of energy efficiency-related costs; and

(vi) offering home energy audits, offering demand response programs, publicizing the financial and environmental benefits associated with making home energy efficiency improvements, and educating homeowners about all existing Federal and State incentives, including the availability of low-cost loans, that make energy efficiency improvements more affordable.

16 U.S.C. § 2621(d)(17)(B).

With respect to the first policy option set forth in EISA Section 532(a)(17)(B)—removing the throughput incentive and other regulatory and management disincentives to energy efficiency—Duke Witness Stevie testified that S.C. Code Ann. § 58-37-20 "authorizes the

Commission to adopt procedures to provide incentives and cost recovery for cost effective energy efficiency and [demand-side management] programs." Direct Testimony of Richard G. Stevie, Ph.D., at 8. In their testimony, Progress Witness Bateman and ORS Witness James noted that, pursuant to our authority under § 58-37-20, we recently approved Progress's cost recovery mechanism for its DSM & EE programs in Docket No. 2008-251-E, Order No. 2009-373. Direct Testimony of Laura A. Bateman, at 4; Direct Testimony of M. Anthony James, at 5-6. In that Order, we approved a cost recovery mechanism that specifically removed the throughput incentive by allowing Progress to recover net lost revenues associated with it DSM & EE programs and effectively removed the utility's disincentive to pursue energy efficiency consistent with the policy outlined in EISA Section 532(a)(17)(B)(i).

Likewise, SCE&G Witness Wright testified that adoption of this policy is unnecessary because the Commission "already has the authority and even has an ongoing docket (2009-261-E) addressing these issues for [SCE&G]." Direct Testimony of Julius A. Wright, Ph.D., at 20. SCE&G's proposed cost recovery mechanism is "an annually adjusted rider that recovers all prudent demand-side costs over a five-year period, provides for an incentive return, and allows recovery of lost net margins," and according to Dr. Wright, if approved, this cost recovery mechanism would remove disincentives to investments in energy efficiency programs consistent with the first EISA policy option. Direct Testimony of Julius A. Wright, Ph.D., at 20-21. Dr. Wright suggested, however, that "any cost recovery mechanism should be addressed on a company specific basis simply due to the fact that the type of recovery mechanism may change based on a specific utility's energy efficiency investments." Direct Testimony of Julius A. Wright, Ph.D., at 20.

With respect to the second policy consideration set forth in EISA Section 532(a)(17)(B)—providing utility incentives for the successful management of energy efficiency programs— Progress Witness Bateman and ORS Witness James noted that, in Docket No. 2008-251-E, Order No. 2009-373, we also approved an incentive for successfully managing energy efficiency programs after measurement and verification consistent with the policy outlined in EISA Section 532(a)(17)(B)(ii). Direct Testimony of Laura A. Bateman, at 4; Direct Testimony of M. Anthony James, at 5-6. And, Duke Witness Stevie testified that, in Docket 2009-226-E and in connection with its modified save-a-watt proposal, Duke has currently pending before the Commission a proposed cost recovery mechanism that provides an appropriate incentive for a utility to adopt energy efficiency measures. Direct Testimony of Richard G. Stevie, Ph.D., at 8.

SCE&G Witness Wright again testified that adoption of this policy is unnecessary because SCE&G has an ongoing docket addressing issues of cost recovery and an incentive mechanism for its energy efficiency investments. Direct Testimony of Julius A. Wright, Ph.D., at 23. According to Dr. Wright, SCE&G's cost-recovery mechanism, if approved, will provide a management-based incentive consistent with EISA Section 532(a)(17)(B)(ii). Direct Testimony of Julius A. Wright, Ph.D., at 22. As with the first policy option, Dr. Wright stated that "such a mechanism could be different for each company and should therefore be supported in a different proceeding on a company specific basis." Direct Testimony of Julius A. Wright, Ph.D., at 23.

With respect to the third and fourth policy options outlined in EISA Section 532(a)(17)(B)—including the impact on adoption of energy efficiency as one of the goals of retail rate design and adopting rate designs that encourage energy efficiency for each customer class—Progress Witness Bateman testified that almost all of Progress's rates result in an incentive to customers to adopt energy efficiency, and she also noted that almost all of Progress's

rates are seasonally differentiated (higher in the summer months), which encourages customers to conserve during months of highest demand and highest marginal costs. Direct Testimony of Laura A. Bateman, at 5. Ms. Bateman also made clear that time-of-use tariffs, which encourage the shifting of usage to off-peak periods, are available to all customer classes. Direct Testimony of Laura A. Bateman, at 5. Further, Progress offers special incentives for customers to curtail usage during peak times through its EnergyWise program, through voluntary load control programs, and through its experimental Large General Service Real Time Pricing Schedule. Direct Testimony of Laura A. Bateman, at 6.

Progress also offers rate designs to incent customers to consume less electricity or to utilize technology to reduce usage. For example, its Residential Energy Conservation Discount Rider offers a lower rate for any residence that achieves an Energy Star certification; its Small General Service Thermal Energy Storage Schedule encourages the installation of thermal storage for space conditioning; and standby service riders support the installation of energy efficient cogeneration and provide a replacement source of power when a customer's generation is not operating. Direct Testimony of Laura A. Bateman, at 6-7. According to Ms. Bateman, Progress's "wide array of tariffs and riders demonstrate that [Progress]'s rate designs encourage energy efficiency for each customer class" and "due to the cost recovery and utility incentives for DSM/EE programs mentioned earlier, Progress has every incentive to support the efforts of its DSM/EE organization through rate design and to encourage adoption of energy efficiency." Direct Testimony of Laura A. Bateman, at 7.

SCE&G Witness Wright testified that, consistent with the objectives of EISA Sections 532(a)(17)(B)(iii) and (iv), SCE&G currently has a time-of-use tariff for residential and large and small general service customers. Direct Testimony of Julius A. Wright, Ph.D., at 24.

According to Dr. Wright, SCE&G also has inverted block rates for summertime electric usage which promotes more efficient electric usage in the summer and offers thermal storage and interruptible rates, which are designed to reduce peak demand. Direct Testimony of Julius A. Wright, Ph.D., at 24. Dr. Wright also noted that "[t]heoretically, a variety of rate designs can encourage end-use energy efficiency, such as seasonal rates, inclining block rates, real time pricing . . . , and critical peak pricing" but that "the success of these rate designs in terms of energy efficiency gains has been mixed." Direct Testimony of Julius A. Wright, Ph.D., at 23-24. Dr. Wright stressed that "energy efficiency rate design must be balanced with other objectives"—protecting the interests of all ratepayers, the minimization of cost shifting, and some type of cost justification in any energy efficiency rate design—and that "SCE&G would recommend a better alternative than adopting the proposed standards would be for the Commission to . . . simply to continue to promote and encourage appropriate and innovative rate designs that encourage energy efficiency." Direct Testimony of Julius A. Wright, Ph.D., at 24-25.

Duke Witness Bailey testified that Duke currently has several electric tariffs that encourage energy efficiency. For example, Duke's rate schedule Hourly Pricing for Incremental Load, available to certain non-residential customers with loads in excess of 1,000 kW, is a voluntary tariff offering non-residential customers the opportunity to manage their electric costs by either shifting load from higher cost to lower cost pricing periods and adding new load during lower cost pricing periods, or to learn about market pricing. Direct Testimony of Jeffrey R. Bailey, at 10. And, a substantial amount of Duke's general service and industrial load is served under its Schedule OPT which is time-differentiated by season and by on and off-peak periods,

and residential customers may opt to receive service under a time-of-use rate. Direct Testimony of Jeffrey R. Bailey, at 10.

Mr. Bailey made clear, however, that Duke believes that "[e]ncouraging energy efficiency . . . must be in alignment with the cost of service for the benefit of both the customer and the utility" and that utilities should not be forced to implement alternative rate designs that are unsupportable by competent studies. Direct Testimony of Jeffrey R. Bailey, at 6. Likewise, Duke Witness Stevie testified that "[a]lthough Duke Energy Carolinas supports the encouragement of energy efficiency, there are policy considerations, other than energy efficiency, that need to be considered in adopting actual rate design schemes for various customer classes." Direct Testimony of Richard G. Stevie, Ph.D, at 9. For example, Dr. Stevie testified that rate designs such as inclining block rates or seasonal rates must be supported by cost of service studies and through load analysis, and he also pointed out that residential customers may not have the time or the sophistication to manage energy consumption on their own to avoid higher price blocks and would potentially face higher bills. Direct Testimony of Richard G. Stevie, Ph.D, at 9.

With respect to the fifth policy option set forth in EISA Section 532(a)(17)(B)—allowing timely recovery of energy efficiency-related costs—Progress Witness Bateman and ORS Witness James noted that, in Docket No. 2009-191-E, Order No. 2009-435, we addressed this policy option when we approved Progress's annual rider associated with the implementation of its energy efficiency programs. Direct Testimony of Laura A. Bateman, at 4; Direct Testimony of M. Anthony James, at 5-6.

Finally, with respect to the sixth policy option set forth in EISA Section 532(a)(17)(B), Duke Witness Stevie noted that the Commission recently approved several energy efficiency

programs and measures—specifically, Duke's Residential and Non-Residential Energy Assessment Programs (energy home audits) and Power Manager and PowerShare programs (demand response programs)—that are consistent with a number of the considerations of EISA Section 532(a)(17)(B)(vi). Direct Testimony of Richard G. Stevie, Ph.D., at 11.

Progress Witness Bateman also testified that Progress has recently expanded its DSM/EE customer education efforts through its Save-The-Watts educational program, which is designed to help customers use energy more wisely and provide them with specific tools and tips to help them save energy and money. Direct Testimony of Laura A. Bateman, at 8. Ms. Bateman further testified that, as Progress continues to develop additional DSM/EE programs, it plans to promote any applicable tax incentives that may be leveraged by the homeowner in conjunction with Progress's applicable rebates and incentives. Direct Testimony of Laura A. Bateman, at 8.

SCE&G Witness Wright testified that adoption of the sixth policy option is unnecessary given that many of the proposals are already being implemented by SCE&G. Direct Testimony of Julius A. Wright, Ph.D., at 26. Dr. Wright noted that SCE&G offers at no charge to its customers extensive web-based information on all types of home energy audits and energy saving ideas and programs. Direct Testimony of Julius A. Wright, Ph.D., at 25. With respect to home energy audits, SCE&G also provides for in-home energy consultations. Direct Testimony of Julius A. Wright, Ph.D., at 25. On the website, SCE&G also provides information on energy efficiency for residential customers including information on tax credits, weatherization of homes, and assistance programs. Direct Testimony of Julius A. Wright, Ph.D., at 25-26.

Having considered all the evidence before us, we decline to adopt proposed standards set forth in Section 532(a)(17) of EISA. In our view and consistent with the intent of EISA, the South Carolina General Assembly long ago provided us with the necessary tools to establish

incentives that encourage energy efficiency as S.C. Code Ann. § 58-37-20 provides that the Commission "may adopt procedures that encourage electrical utilities . . . subject to the jurisdiction of the commission to invest in cost-effective energy efficient technologies and energy conservation programs" and requires that, if adopted, those procedures must "provide incentives and cost recovery for energy suppliers and distributors who invest in energy supply and end-use technologies that are cost-effective, environmentally acceptable, and reduce energy consumption or demand." Importantly, rather than mandating a one-size-fits-all approach for South Carolina's various utilities, § 58-37-20 provides us with the flexibility to adopt any of the policy options outlined in EISA, but to do so on a utility-by-utility basis.

In sum, given the authority—and the flexibility—granted to us under S.C. Code Ann. § 58-37-20 and the pending proceedings in which we may address these policy issues on a utility-by-utility basis, we see no need to adopt the proposed standard set forth in Section 532(a)(17) of EISA at this time.

2. Natural Gas Utilities

Section 532(b)(6) of EISA also requires us to consider certain rate design modifications for natural gas utilities that align utility incentives with the deployment of cost-effective energy efficiency. See 15 U.S.C. § 3203(b)(6)(A). Specifically, EISA requires us to consider the following four policy options:

(i) separating fixed-cost revenue recovery from the volume of transportation or sales service provided to the customer;

(ii) providing to utilities incentives for the successful management of energy efficiency programs, such as allowing utilities to retain a portion of the cost-reducing benefits accruing from the programs;

(iii) promoting the impact on adoption of energy efficiency as 1 of the goals of retail rate design, recognizing that energy efficiency must be balanced with other objectives; and

(iv) adopting rate designs that encourage energy efficiency for each customer class.

15 U.S.C. § 3203(b)(6)(B).

With regard to the first policy option set forth in EISA Section 532(b)(6)(B)—separating fixed-cost revenue recovery from the volume of transportation or sales service provided to the customer—SCE&G Witness Wright testified that although this option might be considered, the rate-setting mechanism established by the Natural Gas Rate Stabilization Act, S.C. Code Ann. §§ 58-5-400 to 58-5-480, already "helps to mitigate the margin loss issue." Direct Testimony of Julius A. Wright, Ph.D., at 35. And, PNG Witness Powers noted that PNG has margin decoupling in place in North Carolina and has recently filed for margin decoupling in Tennessee. According to Ms. Powers, should PNG ultimately determine that such a mechanism is appropriate in South Carolina, "existing South Carolina law provides a basis upon which the Commission can approve such a proposal." Testimony of Pia K. Powers, at 4.

With regard to second policy option set forth in EISA Section 532(b)(6)(B)—providing to utilities incentives for the successful management of energy efficiency programs—SCE&G Witness Wright testified that S.C. Code Ann. § 58-37-20 already allows a utility to earn an incentive for supporting the promotion of energy efficiency programs and notes that SCE&G has already proposed such a mechanism in its proposed energy efficiency investments for its electric consumers in Docket No. 2009-261-E. Direct Testimony of Julius A. Wright, Ph.D., at 36. Dr. Wright emphasized that, should the Commission adopt a gas-based incentive, the Commission will need to specify the types of incentives to be used, the appropriate documentation and filings

required to support the incentive, and any data that must accompany such a filing, and he cautioned that "the appropriate incentive mechanism and supporting documentation [required to support the incentive] [may] vary by utility or be different depending upon the specific efficiency program being addressed." Direct Testimony of Julius A. Wright, Ph.D., at 37.

With respect to the third policy option set forth in EISA Section 532(b)(6)(B)—promoting the impact on adoption of energy efficiency as one of the goals of retail rate design—SCE&G Witness Wright testified that "[SCE&G]'s rate setting methodology already complies with this proposal" because SCE&G employs the rate stabilization mechanism along with cost-based rates in setting its rates. Direct Testimony of Julius A. Wright, Ph.D., at 37. According to Dr. Wright, "[t]he rate stabilization mechanism removes some of the financial disincentive [SCE&G] might have with respect to investing in energy efficiency programs," and "by using cost based rates, . . . [SCE&G] provides its customers with rates that minimize costs and maximize the utilization of scarce resources." Direct Testimony of Julius A. Wright, Ph.D., at 37.

PNG Witness Powers cautioned that there are "many unanswered questions" concerning the idea of designing rates for the purpose of promoting energy efficiency—namely how to implement such rate designs without causing unintended effects or unfairly reallocating costs amongst customers. Testimony of Pia K. Powers, at 5. According to Ms. Powers, these issues "are best resolved in individual proceedings before the Commission." Testimony of Pia K. Powers, at 5.

With respect to the fourth policy option set forth in EISA Section 532(b)(6)(B)—adopting rate designs that encourage energy efficiency for each customer class—SCE&G Witness Wright testified that adoption of this policy option is "unnecessary" because SCE&G

"already employs the rate stabilization mechanism that, along with its cost-based rates, provide the best price signals to customers in terms of promoting efficient gas usage and energy efficiency." Direct Testimony of Julius A. Wright, Ph.D., at 38. Dr. Wright also noted that "[t]heoretically, a variety of rate designs can encourage end-use energy efficiency, such as seasonal rates, inclining block rates, real time pricing . . . , and critical peak pricing" but that "the success of these rate designs in terms of energy efficiency gains has been mixed." Direct Testimony of Julius A. Wright, Ph.D., at 38-39. And, Dr. Wright posited that "there are a number of natural gas customers who would likely argue that some assumed conservation-based rates are inequitable, not cost-based, and are likely to produce undue hardships and undesired consequences on the affected customers." Direct Testimony of Julius A. Wright, Ph.D., at 39.

PNG Witness Powers testified that PNG's industrial and process customers have strong incentives to conserve in order to lower their costs of doing business, and consequently these customers are far ahead of the average residential or commercial customer in terms of energy efficiency. Testimony of Pia K. Powers, at 6. Thus, according to Ms. Powers, "[w]ithout discrete examples of how to effectively promote increased conservation for these types of customers fairly and equitably, it is difficult to know if the promotion of such additional conservation can be achieved in a cost-effective or reasonable manner." Testimony of Pia K. Powers, at 6. As such, Ms. Powers testified that this fourth policy option is an issue "best resolved in the context of a discrete proceeding before the Commission." Testimony of Pia K. Powers, at 6.

Having considered all the evidence before us, we decline to adopt any of the proposed standards or policy options set forth in Section 532(b)(6) of EISA. As with electric utilities, we find that S.C. Code Ann. § 58-37-20 provides us with the necessary tools to establish incentives

on a utility-by-utility basis that encourage natural gas utilities "to invest in cost-effective energy efficient technologies and energy conservation programs." And, as SCE&G Witness Wright and ORS Witness Flynt noted, the rate-setting mechanism established by the Natural Gas Rate Stabilization Act, S.C. Code Ann. §§ 58-5-400 to 58-5-480, achieves the goals of the proposed EISA standards and policy options because it allows a company to adjust its rates annually and provides the company an opportunity to maintain its allowed margins, even if the company's gas sales volumes have decreased due to conservation, energy efficiency, or other factors. Direct Testimony of Julius A. Wright, Ph.D., at 34; Direct Testimony of Carey M. Flynt, at 5.

We also note that, as Ms. Flynt testified, the customer characteristics and local distribution system characteristics are unique to the individual natural gas utilities. Direct Testimony of Carey M. Flynt, at 5. For example, PNG provides natural gas service to approximately 132,000 customers in four adjacent upstate counties through 3,900 miles of mains, while SCE&G provides natural gas service to about 309,000 customers in all or part of 35 South Carolina counties through approximately 8,800 miles of mains. Direct Testimony of Carey M. Flynt, at 5-6.

Given these differences, we conclude that the adoption of a specific rate design standard would not be in the best interest of the customers or the natural gas utilities, and we therefore decline to do so at this time. We think it prudent to continue to address energy efficiency and conservation issues related to natural gas on a utility-by-utility basis.

D. Smart Grid Investments

Section 1307(a)(16) of EISA mandates that we consider (i) requiring an electric utility to demonstrate that the utility considered an investment in a "qualified" smart grid system prior to undertaking investments in traditional grid technologies; (ii) allowing utilities to recover, from

ratepayers, costs relating to the deployment of a qualified smart grid system; and (iii) authorizing an electric utility to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system. See 16 U.S.C. § 2621(d)(18). In comparing an investment in a "qualified" smart grid system to an investment in a traditional grid technology, EISA would require the utility to consider the following factors: total costs, cost-effectiveness, improved reliability, security, system performance and societal benefit. § 2621(d)(18)(A).

The proposed EISA standard would require an economic analysis of a Smart Grid investment versus conventional technology before employing conventional technology. Among other things, that analysis would look at total costs, cost-effectiveness, and societal benefit.

SCE&G Witness Senn testified that the cost savings or benefits of a Smart Grid system rely on customer-based demand response programs and that there is "insufficient evidence" to determine the level of these energy usage savings and related costs. Direct Testimony of Randal M. Senn, at 13. Without an accurate assessment of energy savings, Mr. Senn stated that it is "unrealistic" to attempt to estimate any societal benefit. Direct Testimony of Randal M. Senn, at 13. Mr. Senn further stated that there is insufficient evidence to determine if there is improved reliability, improved system performance, or improved security—all factors that the proposed standard requires be considered in the evaluation of a Smart Grid investment. Direct Testimony of Randal M. Senn, at 13. Thus, Mr. Senn concluded that "it is too early in the development of Smart Grid systems to adopt an economic analysis that is impossible to comply with at this time, simply due to the fact that the economic data is not available." Direct Testimony of Randal M. Senn, at 13-14. Mr. Senn emphasized that, given the current state of Smart Grid technology, complying with the economic evaluation criteria in the proposed standard is "fraught with

unknown and unsupportable economic assumptions." Direct Testimony of Randal M. Senn, at 14. Mr. Senn proposed that "the Commission and [SCE&G] continue to monitor the evolution of Smart Grid developments, and . . . if necessary, hold hearings to establish standards at [a future] time." Direct Testimony of Randal M. Senn, at 14.

Progress Witness Harrison testified that EISA does not provide a definition of a "qualified" smart grid system, and the smart grid concept can have numerous components—some of which are not yet presently available. Direct Testimony of Rebecca S. Harrison, at 13. According to Ms. Harrison, given the ambiguity of the term "qualified," the rapidly evolving nature of smart grid technology, and the different characteristics of each utility's distribution system, it is "practically impossible" to determine what exactly constitutes a "qualified" smart grid investment for a given utility under the proposed EISA standard. Direct Testimony of Rebecca S. Harrison, at 14. According to Ms. Harrison, until the Commission or the General Assembly identifies those goals and policies that will govern how "societal benefits" are to be considered in making smart grid investments, the best approach is to "requir[e] utilities to stay abreast of smart grid technology and potential benefits." Direct Testimony of Rebecca S. Harrison, at 15.

As to the standards set forth in Section 1307(a)(16)(B-C) of EISA, Ms. Harrison further testified that, consistent with the utility's entitlement to recover its just, reasonable, and prudent costs under both state and federal law, utilities should be allowed to recover appropriate costs related to the implementation of Smart Grid technology, including the remaining book value of equipment rendered obsolete by the implementation of Smart Grid technology. Direct Testimony of Rebecca S. Harrison, at 15.

Duke Witness Denton testified that Duke already considers the six policy factors outlined in Section 1307(a)(16)(A) as they relate to Duke's Smart Grid investments in South Carolina. Direct Testimony of Donald H. Denton, III, at 6. According to Mr. Denton, the EISA standards need not be formally adopted by the Commission because "there are sufficient regulations, policies, and utility tariffs in place that accomplish the goals of the EISA 2007 standard." Direct Testimony of Donald H. Denton, III, at 6.

As to Section 1307(a)(16)(B-C) of EISA, Duke Witness McManeus testified that utilities should be able to recover appropriate "costs related to the implementation of Smart Grid technology, including the remaining book value of equipment rendered obsolete." Direct Testimony of Jane L. McManeus, at 8. Ms McManeus testified, however, that formal adoption of the EISA standards was unnecessary because the Commission's existing authority over rate making "provides the necessary legal basis for the recovery of Smart Grid investments." Direct Testimony of Jane L. McManeus, at 8.

Finally, ORS Witness James testified that utilities already consider many of the factors outlined in Section 1307(a)(16)(A) of EISA when making an investment in technology to ensure that the investment is in the public interest, is reasonable and prudent, and results in the minimization of total costs of the utility's overall system and in the least cost to the consumer consistent with the availability of an adequate and reliable supply of electricity. Direct Testimony of M. Anthony James, at 9. And, with regard to Sections 1307(a)(16)(B-C), Mr. James testified that our existing authority allows us to approve recovery of capital costs and operating costs associated with Smart Grid technologies, as well as the cost of obsolete equipment, through revised base rates established in a general rate case proceeding or to permit

rate recovery outside of a general rate case by approving a specific rider to base rates. Direct Testimony of M. Anthony James, at 9.

Having considered all of the evidence before us, we find it unnecessary to adopt the standard set forth in Section 1307(a)(16) of EISA at this time. For now, it is more appropriate and workable for the companies to first identify the need to be addressed by an investment and then consider the range of options—including Smart Grid options—to meet the identified need. Also, we believe our existing authority and procedures is sufficient to allow utilities to recover appropriate costs related to the implementation of Smart Grid technology, including the remaining book value of equipment rendered obsolete by the implementation of Smart Grid technology, consistent with the utility's entitlement to recover its just, reasonable, and prudent costs under both state and federal law.

For these reasons, we decline to adopt the proposed standard set forth in Section 1307(a)(16) of EISA.

E. Smart Grid Information

Finally, Section 1307(a)(17) of EISA requires us to consider adopting a standard that would require utilities to provide all electricity purchasers direct access, in written or electronic machine-readable form as appropriate, to the following information, to the extent practicable: time-based prices or rates; kWh usage; updates of information on prices and usage offered on a daily basis, including hourly price and use information and a day-ahead projection of such price information; and annual written information on sources of power provided by type of generation (including greenhouse gas emissions) for available intervals. See 16 U.S.C. § 2621(d)(19). For the following reasons, we find that it is unnecessary to adopt this standard at this time.

SCE&G Witness Senn testified that SCE&G has deployed technology in recent years which contains Smart Grid capabilities. Specifically, SCE&G's large commercial and industrial customers have access to fifteen (15) minute interval meter data in a near real-time fashion via the internet. Direct Testimony of Randal M. Senn, at 6. Most of SCE&G's other customers have meters that are currently read once a month, and these customers can view their usage history on their paper bill statement or on SCE&G's website. Direct Testimony of Randal M. Senn, at 6-7. SCE&G expects to soon pilot the use of in-home display devices, which would read directly from the customer's meter and provide customers with electronic usage information and trending. Direct Testimony of Randal M. Senn, at 7. With respect to providing information related to sources of generation, Mr. Senn noted that much of this information is contained within [SCE&G]'s annual Form 1 filing with the Federal Energy Regulatory Commission ("FERC") and also cautions that "some portion of the energy that [SCE&G] delivers to its retail customers is purchased from other providers who receive their energy from various operators in multiple states. These other suppliers are generally either unable or unwilling to indicate the ultimate sources that they relied upon to generate the energy sold to [SCE&G]." Direct Testimony of Randal M. Senn, at 16-17.

According to Mr. Senn, SCE&G believes that the establishment of information standards at this time would be "premature" given the current state of Smart Grid technology because it is unclear how much of the proposed information can be delivered to customers, whether the customers desire the information, and how much providing the information will cost. Direct Testimony of Randal M. Senn, at 16-18. Moreover, it will be impossible to fully comply with the proposed requirements regarding sources of power and greenhouse gas emissions because it

is "simply impossible to dictate to outside energy suppliers that they provide the information required under [EISA]. Testimony of Randal M. Senn, at 17-18.

Progress Witness Bateman testified that, in addition to rate and usage information provided in a customer's bill, Progress provides information regarding its rates and tariffs, which includes time-based retail rates available through the Progress's time-of-use rate schedules, on its company website. Direct Testimony of Laura A. Bateman, at 11. Progress customers may also access to their 24-month billing history via the company website, which provides an analysis tool whereby a customer can easily compare usage to prior periods and better understand consumption patterns. Direct Testimony of Laura A. Bateman, at 11. Progress also offers all General Service customers real time usage information via meter pulses or direct access to the billing meter as set forth in the Meter-Related Optional Programs Rider. Direct Testimony of Laura A. Bateman, at 12. This program allows customers to utilize customer-owned software or demand control equipment to reduce consumption, and if the customers do not desire to acquire the necessary software, Progress offers the Energy Profiler Online service that allows customers to review their 15-minute interval usage on a next day or monthly basis. Direct Testimony of Laura A. Bateman, at 12. And for Large General Service customers, Progress offers an experimental real-time pricing schedule to encourage load shifting during higher cost peak periods. Direct Testimony of Laura A. Bateman, at 12. Progress's current metering infrastructure and processes do not support providing hourly usage data to Residential customers. Direct Testimony of Laura A. Bateman, at 13. According to Ms. Bateman, "[m]ore research is needed to determine whether the cost of creating the infrastructure to obtain and provide such information to residential customers is outweighed by the potential benefits." Direct Testimony of Laura A. Bateman, at 13.

As to information regarding sources of power, Ms. Bateman noted that Progress's company website describes in detail how Progress will meet the Carolinas' load requirements using both generation and energy efficiency and demand side management resources and that Progress regularly reports detailed information regarding generation used to produce electricity for sale to retail customers in the Uniform Statistical Report available on its website under the Investors menu, the annual Form 1 filings made at FERC, and monthly Fuel Reports provided to the Commission in support of annual fuel adjustment requests. Direct Testimony of Laura A. Bateman, at 13-14. Ms. Bateman also noted that Progress's carbon dioxide emissions data are reported annually to the United States Environmental Protection Agency and that Progress voluntarily joined The Climate Registry, a greenhouse gas emissions reporting system and recently submitted Progress's 2008 emissions data inventory to the registry, whose data is publicly available. Direct Testimony of Laura A. Bateman, at 14-15.

Duke Witness Denton testified that Duke currently offers time-of-use rates for all residential and non-residential customers and that non-residential customers larger than 1000 kW may opt for an hourly pricing rate which gives "day ahead" prices for incremental load above an established baseline. Direct Testimony of Donald H. Denton, III, at 22-23. Also, customers with demands greater than 5000 kW are generally metered using interval metering devices. Direct Testimony of Donald H. Denton, III, at 23. For a monthly fee, customers that wish to receive the interval data may subscribe to an online tool that provides the customer with access to their interval data, along with the graphing and analytical tools. Direct Testimony of Donald H. Denton, III, at 23. This same service is available to customers of any size who pay an additional fee for the necessary metering to provide interval data. Direct Testimony of Donald H. Denton, III, at 23. Mr. Denton also testified that general information on sources of power provided by

type of generation is available on Duke's company website but that the other information discussed in the EISA standard is not currently generally available to customers. Direct Testimony of Donald H. Denton, III, at 23.

Mr. Denton testified that formal adoption of the EISA information standards by the Commission is unnecessary and noted that, in Docket No. 2005-386-E, the Commission determined that it was unnecessary to adopt a very similar standard because of the activities that the utilities were already pursuing. Direct Testimony of Donald H. Denton, III, at 24.

Given the activities that are already being pursued by the utilities, we decline to formally adopt the EISA standards set forth in Section 1307(a)(17) of EISA at this time.

III. CONCLUSION

The Commission has considered the uncontroverted testimony of the witnesses and the other evidence of record in this proceeding, including the Stipulation. Based on this factual record, the Commission finds that it is unnecessary to adopt the proposed EISA standards at this time.

NOW THEREFORE, based upon the foregoing, IT IS HEREBY DECLARED AND ORDERED THAT:

1. The proposed EISA standards set forth in Sections 532 and Sections 1307 are not adopted at this time. The Stipulation attached hereto as Order Exhibit No. 1, which was accepted into the record without objection at the hearing, constitutes a reasonable resolution to this proceeding and is hereby adopted as such.
2. This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

Elizabeth B. Fleming, Chairman

ATTEST:

John E. Howard, Vice Chairman

(SEAL)